

BWF3 High Power Rack Mount Fiber Delivering Laser System



The BWF3 Series is a rack mount turnkey fiber-coupled laser system providing up to 150 Watt of continuous power. Combined with a high brightness fiber-coupled laser diode, thermoelectric cooler, power supply and control electronics the BWF3 comes in one complete package.

The system operates from standard wall plug line power. The unique design of BWF3 includes features as visible (red or green) aiming beam, multifunction relay controller for versatile laser operations, and a remote port for external modulation and control purpose.

Optional features include lens assemblies that can be attached to the end of fiber with an SMA 905 connector. By use of the lens projection assembly spots as small as 0.3mm in diameter can be achieved at designed distance providing the user with an intense, non-contact heat source. In addition, optional control interfaces via TTL or analog ports are available for laser and aiming power.

Highlights

- *Power delivered by high-brightness fiber*
- *Stand-alone self-contained system*
- *Compact, TEC with forced air cooling*
- *635-2000 nm wavelengths available*
- *Conversion into OEM system for qualified OEM customer*

Applications

Industrial

- *Selective soldering/de-soldering*
- *Heat treating*
- *Quick curing of epoxy*
- *Transformation hardening*
- *Plastic welding*

Medical Research

- *Contact cutting, ablation*
- *Coagulation necrosis*
- *Tissue welding/fusion*
- *Laser hyperthermia photodynamic studies*

Specifications

Optical

Power Output	Up to 150 Watt.
Peak Wavelength Range	635-2000nm
Bandwidth(FWHM)	1-3nm @ <1000nm and 10-15nm @ 1400-2000nm.
Output Port	SMA 905
Beam Divergence	0.12-0.4 NA Nominal
Fiber Requirement	50-2000 μ m core
Aiming Beam (Optional)	650+/-10nm @ >1mW (or 532nm @ >1mW)
Electrical	
Input Power	3 - 10A @ 110 VAC, typical
Control	Front panel current control and display 0-max Front panel digital timer (6 operating modes, 10 ms – 9999hrs) (optional) TTL or Analog ports for laser output and aiming beam (optional)

Mechanical

Physical Dimensions	17"X15"X5"
Cooling	Thermal electric cooler with internal fan
Weight	20 lbs

Environmental

Ambient Temperature 1	5-30°C
Humidity	5-95%, non-condensing
Accessory (optional)	Collimator readily threaded onto SMA 905 connector (Beam diameter 6.2mm @ 1/e ² , f=11.0mm @ NA=0.25)

Notes:

1. For clean, defect-free fiber and full rated output at SMA receptacle.
Available options: Visible aiming light, fiber (various diameters, numerical apertures and lengths) and lens cell attachments.